F Post 11/1/68

Life-Span Of Animals Cut In Half By Atom Radiation

By RALPH DIGHTON
AP Science Writer

LAS VEGAS, Nev. (AP) A Five-year study of desert animals on the Nevada nuclear test site shows constant exposure to low-dose radiation cuts the life-span by half and fertility by a third.

In the first disclosure of results of an experiment with radiation of a type that survivors of a nuclear war would experience, Dr. Norman French said in an exclusive interview:

"Even such low-level radiation hastens the processes of aging, shortens the reproductivity period in females and reduces the number of young per litter."

French, a University of California at Los Angeles ecologist heading the Atomic Energy Commission study, said the conclusions were based on regular censuses and examinations of more than 900 cheek-pouched "pocket mice" and hopping "kangaroo mice."

"Most radiation studies have been concerned with the effect on individuals of high-level doses, the type they would get immediately after a detonation," French said.

"We set out to learn what happens to whole populations subjected to low-level radiation over long periods of time. We are all subject to more radiation — from fallout and medical sources — than our grandparents experienced, but science really knows very little about the long-term effects.

"The radiation source used in this experiment, Cesium 137, has a long half-life, that is, it remains significantly radioactive for decades. The dosage was calculated at 1 roentgen per day, equivalent to about two chest X-rays a day — a level people might have to live with for long periods of time after a nuclear war or even after a reactor accident."

The experiment is being made in Rock Valley, just inside the southern boundary of the AEC proving grounds and about 70 miles north of Las Vegas. The surrounding mountains contain the radiation within the test site; they also prevent the planned radiation level from being disturbed by occasional venting during underground nuclear testing at Yucca Flats, 15 miles away.

In this remote spot French and his group erected three 20-acre pens with quarter-inch mesh fencing buried 12 inches deep to keep the rodents in and desert foxes out. The pens are open to the sky but French said there is little depredation by hawks.

In the center of one of the 2,200-foot-diameter pens they put up a 50-foot pole topped by a cannister of Cesium, designed so that an equal amount of radiation strikes all parts of the pen.